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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,882

09/06/2006

Uwe Skultety-Betz

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EXAMINER

WHITTINGTON, KENNETH

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,882	<b>Applicant(s)</b> SKULTETY-BETZ, UWE	
	<b>Examiner</b> KENNETH J. WHITTINGTON	<b>Art Unit</b> 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26 and 27 is/are allowed.
- 6) ☒ Claim(s) 14, 15, 17-25, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

The Amendment filed August 4, 2010 has been entered and considered.

#### ***Allowable Subject Matter***

Claim 26 and 27 are allowed.

Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 16 and 27, they have allowable subject matter in view of the amendments to the claims and the remarks thereto.

Claim 26 was allowed for reasons outlined in previous actions.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 14, 15, 18-20, 23, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett (US3662255) in view of Hirschi et al. (US5325873), hereinafter Hirschi.

Regarding claim 14, Garrett teaches a hand-held locating device for detecting an object enclosed in a medium, comprising:

a housing including a hollow opening penetrating there through, the opening configured in size to guide a device for marking a surface of the medium (See Garrett

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FIGS. 1 and 9, item 32 or 32a or 50a, note housing loop 32 contains sensor loops and defines a several hollow openings therein adjacent to the housing loop 32 which can be used to guide marking devices. Note hollow four hollow openings between loop 32 and items 33 and 18);

at least one sensor system enclosed within an interior of the housing, the sensor system surrounding the hollow opening (See FIGS. 1 and 9, item 45 or 45a or 51, note sensor loops in housing 32 or 50a surrounding the hollow openings defined by housing 32 or 50a and items 33 and 18);

evaluation electronics enclosed within another portion of the housing (See FIGS. 1 and 9, note item 22);

at least one light source provided in the measuring device configured to illuminate the hollow opening (See FIG. 9, items 200), and

a handle attached to the housing, the handle situated in close proximity to the housing so as to permit an operator to grasp the handle while operating the device for marking a surface of the medium (See FIG. 1, item 30 and see col. 7, lines 18-21);

wherein the medium is situated outside of the locating device (See col. 7, lines 22-25, note the ground or a wall can be the medium which is located outside the device).

Garrett further teaches that the extension between the upper housing 22 for the electronics and lower housing 32, 32a or 50 for the sensor can be dispensed with such that the indicator assembly 32a is mounted on a small dimensional housing held directly by the operator (See Garrett col. 7, lines 18-21), but Garrett does not illustrate this

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embodiment. Hirschi teaches a magnetic locator system comprising a single housing for housing the evaluation electronics and the sensor system within an interior of the housing and wherein the housing further has an opening there through for marking the medium (See Hirschi FIGS. 1, 3 and 4, note housing 12 and 14 illustrates as one piece unit). It would have been obvious at the time the invention was made to use a single housing in Garrett such that the apparatus of Garrett has a single housing enclosing the electronics and the sensor and including the opening. One having ordinary skill in the art would do so in view of the comment in Garrett noted above which states the sensor housing can be incorporated into a hand held housing (See Garrett col. 7, lines 18-21), which can be accomplished in view the illustration of Hirschi, which provides a hand held magnetic locator wherein the sensor housing is incorporated into the electronics housing to provide a single modular unit (See Hirschi FIGS. 1, 3, 4, housing 12/14).

Regarding claim 15, this combination teaches the sensor system has at least one inductive sensor for locating purposes (See Garrett FIGS. 1-9, item 45 or 45a).

Regarding claim 18, this combination teaches the hollow opening is formed by a sleeve, the light source configured to illuminate the sleeve (See Garrett FIG. 9, note item 50a which is at least part of one of the hollow openings).

Regarding claim 19, this combination teaches the sleeve is made of an at least partially transparent plastic (See Garrett FIGS. 1-9, item 50 or 50a and see col. 3, lines 31-38).

Regarding claim 20, this combination teaches the sleeve is configured to scatter light diffusively (See Garrett FIGS. 1-9, item 50a, note material is translucent).

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Regarding claim 23, this combination teaches the hollow opening is variably illuminated as a function of a measuring signal of at least one sensor (See Garrett col. 7, lines 11-17).

Regarding claim 24, this combination teaches the light source includes a plurality of light sources (See Garrett FIG. 9, note plurality of bulbs 200).

Regarding claim 28, Garrett teaches a hand-held locating device for detecting an object enclosed in a medium, comprising:

a housing including a hollow opening penetrating there through, the hollow opening configured in size to guide a device for marking a surface of the medium (See Garrett FIGS. 1 and 9, item 32 or 32a or 50a, note housing loop 32 contains sensor loops and defines a several hollow openings therein adjacent to the housing loop 32 which can be used to guide marking devices. Note hollow four hollow openings between loop 32 and items 33 and 18);

at least one sensor system enclosed within the housing, the at least one sensor system surrounding the hollow opening (See FIGS. 1 and 9, item 45 or 45a or 51, note sensor loops in housing 32 or 50a surrounds hollow opening defined by housing 32 or 50a and items 18 and 33);

evaluation electronics enclosed within another portion of the housing (See FIGS. 1 and 9, note item 22);

at least one light source provided in the measuring device configured to illuminate the hollow opening (See FIG. 9, items 200); and

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a handle attached to the housing, the handle situated in close proximity to the housing so as to permit an operator to grasp the handle while operating the device for marking a surface of the medium (See FIG. 1, item 30 and see col. 7, lines 18-21);

wherein the medium is situated outside of the locating device (See col. 7, lines 22-25, note the ground or a wall can be the medium which is located outside the device).

Garrett further teaches that the extension between the upper housing 22 for the electronics and lower housing 32, 32a or 50 for the sensor can be dispensed with such that the indicator assembly 32a is mounted on a small dimensional housing held directly by the operator (See Garrett col. 7, lines 18-21), but Garrett does not illustrate this embodiment. Hirschi teaches a magnetic locator system comprising a single housing for housing the evaluation electronics and the sensor system within an interior of the housing and wherein the housing further has an opening there through for marking the medium (See Hirschi FIGS. 1, 3 and 4, note housing 12 and 14 illustrates as one piece unit). It would have been obvious at the time the invention was made to use a single housing in Garrett such that the apparatus of Garrett has a single housing enclosing the electronics and the sensor and including the opening. One having ordinary skill in the art would do so in view of the comment in Garrett noted above which states the sensor housing can be incorporated into a hand held housing (See Garrett col. 7, lines 18-21), which can be accomplished in view the illustration of Hirschi, which provides a hand held magnetic locator wherein the sensor housing is incorporated into the electronics housing to provide a single modular unit (See Hirschi FIGS. 1, 3, 4, housing 12/14).

Regarding claim 29, this combination teaches the hollow opening is a single hollow opening (See Garrett FIG. 1, note hollow openings between loop 32 and items 33 and 18, each one of which is a single hollow opening).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view Hirschi as applied to claim 14 above, and further in view of Yamashita et al. (US4859931), hereinafter Yamashita. Regarding this claim, Garrett teaches the use of an inductive sensor arrangement, but not including a capacitive sensor. Yamashita teaches using both an inductive sensor and a capacitive sensor in the same device (See Yamashita col. 1, lines 33-65). It would have been obvious at the time the invention was made to incorporate a capacitive sensor into the metal detector of Garrett. One having ordinary skill in the art would do so to locate both metal and non-metallic objects (See Yamashita col. 1, lines 9-13).

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view Hirschi as applied to claim 14 above, and further in view of Audet (US6266006). Regarding these claims, Garrett teaches of the features of claim 14 as discussed above, but not a color coded light signal. Audet teaches an inductive metal/object detector having a light source that is illuminated with a color-coded light signal in at least two different colors (See Audet col. 3, lines 23-35). It would have been obvious at the time the invention was made to incorporate the color coded signal of the detector in Audet in the metal detector of Garrett. One having ordinary skill in the art



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would do so to provide a definite indication of the presence of an object (See Audet col. 3, lines 23-35).

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view Hirschi as applied to claim 14 above, and further in view of Steber et al. (US6844713), hereinafter Steber. Regarding this claim, Garrett teaches the use of neon lamps for the light source, but not an LED. Steber teaches a stud finder using LEDs as light sources behind a translucent material (See Steber FIG. 12, note LEDs D2-D5 behind translucent windows 113). It would have been obvious at the time the invention was made to incorporate LEDs in lieu of the neon lamps in the apparatus of Garrett. One having ordinary skill in the art would do so because either can be used to provide a light signal through translucent material as shown in these references.

### ***Response to Arguments***

Applicant's arguments filed August 4, 2010 have been fully considered but they are not persuasive.

The only argument asserted by Applicants regarding claims 14, 15, 17-25, 28 and 29 is that the noted combinations of references do not teach the hollow opening. However, Garrett teaches precisely this in FIG. 1, between outer loop item 32 containing the inductive coil, the internal web 18 and the inner loop 32, there are four hollow openings, each of which is readable on this feature of the claims. Accordingly, the rejections stand.

### ***Conclusion***

Applicant's amendment necessitated the new/amended ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENNETH J. WHITTINGTON whose telephone number is (571)272-2264. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on (571) 272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth J Whittington/  
Primary Examiner, Art Unit 2858

kjw